

Uromyces gladioli on *Gladiolus*

Uromyces gladioli is considered of quarantine significance for the U.S. It has been reported from central and southern Africa on species of *Babiana*, *Gladiolus*, *Geissorhiza*, *Moraea*, and *Romulea* (Iridaceae).

Uromyces gladioli Henn., Hedwigia 34: 326. 1895.

Spermogonia and aecia unknown.

Uredinia amphigenous, scattered or in groups, often confluent, minute, irregularly round to oblong, up to 0.5 mm long, yellow, subepidermal becoming erumpent; urediniospores globose, subglobose or ovate, subhyaline to pale golden brown, $20\text{--}25 \times 15\text{--}23 \mu\text{m}$, wall hyaline, 2-3.5 μm thick, minutely verrucose; germ pores 6-9 (obscure), scattered.

Telia amphigenous, scattered or in linear groups, elliptic or oblong, often irregular, up to 1 mm, subepidermal, compact, dark brown to black, long covered by epidermis, without paraphyses; teliospores chestnut brown, globose, subglobose, ellipsoid, ovoid, or angular through mutual pressure, apex usually rounded, sometimes truncate or conical, base round or attenuate, $20\text{--}37\text{--}(40) \times 18\text{--}26 \mu\text{m}$, wall smooth, 2-3.5 μm thick, 5-9 μm thick at the apex; pedicel persistent, brown near the apex, 5-7 μm wide, up to 75 μm long.

Hosts: *Babiana*, *Gladiolus*, *Geissorhiza*, *Moraea*, and *Romulea* (Iridaceae).

Geographic distribution: Central and southern Africa.

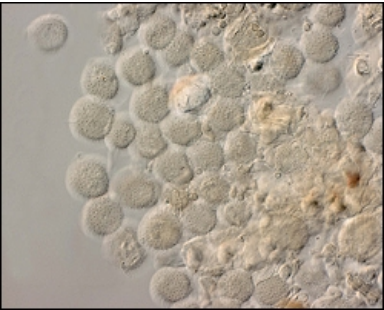
Specimen examined: on *Gladiolus angustus* L., South Africa, Cape, leg. Leibold sn. (B 70 0005184) II-III, Type of *Uromyces gladioli* Henn.

Two other species of *Uromyces* are reported on *Gladiolus*: *U. nyikensis* and *U. transversalis*, also considered quarantine plant pests for the U.S. *Uromyces gladioli* is similar to *U. nyikensis* in the production of telia without paraphyses, but the teliospores of *U. nyikensis* are smaller, $19\text{--}32 \times 14\text{--}22 \mu\text{m}$. Sori of *Uromyces transversalis* are transverse across the veins and 0.5-3 mm long, while in *Uromyces gladioli* sori are not transverse and up to 1 mm long (Smith et al 1992). Additional rust fungi reported on *Gladiolus* include *Uredo gladioli-büttneri*, a species that lacks teliospores, and *Puccinia gladioli* and *Puccinia maccleanii* in which the teliospores are one-septate.

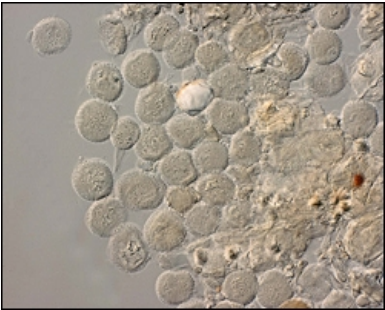
References:

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Doidge, E.M. 1941. South African rust fungi IV. Bothalia 4: 229-236.
Doidge, E.M. 1948. South African rust fungi VI. The species of *Uromyces* on Iridaceae. Bothalia 4: 919-937.
Smith, I.M., McNamara, D.G., Scott, P.R., and Harris, K.M., Eds. 1992. Quarantine Pests for Europe. CAB International with EPPO, 676 pages.

Urediniospores



Urediniospores



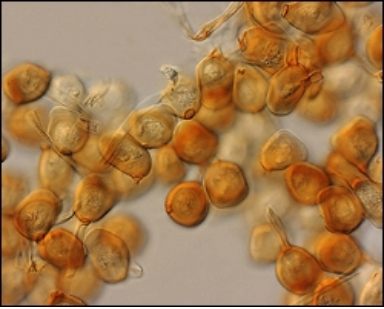
Teliospores



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